


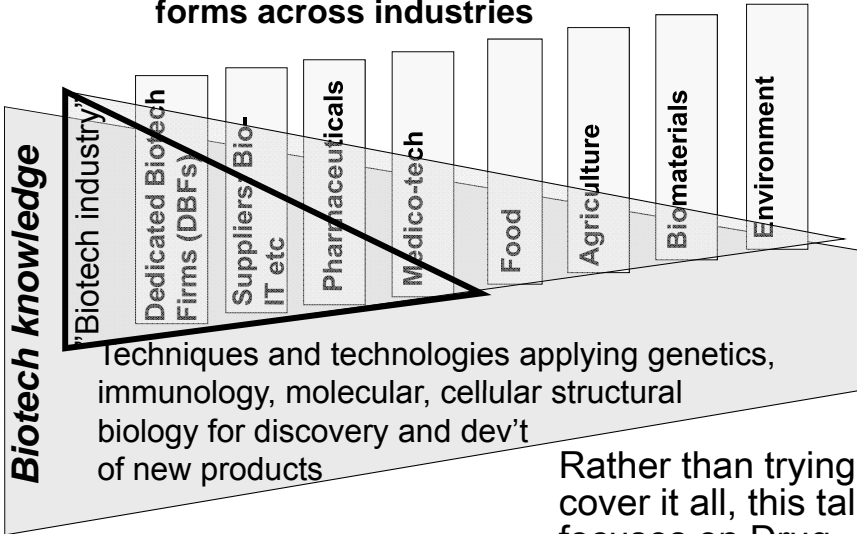
# Projects and Strategy in the Biotech Firm

*Finn Valentin*  
*June 10 - 2011*

Research Centre on Biotech Business ♦ Copenhagen Business School ♦ [www.cbs.dk/biotech](http://www.cbs.dk/biotech)

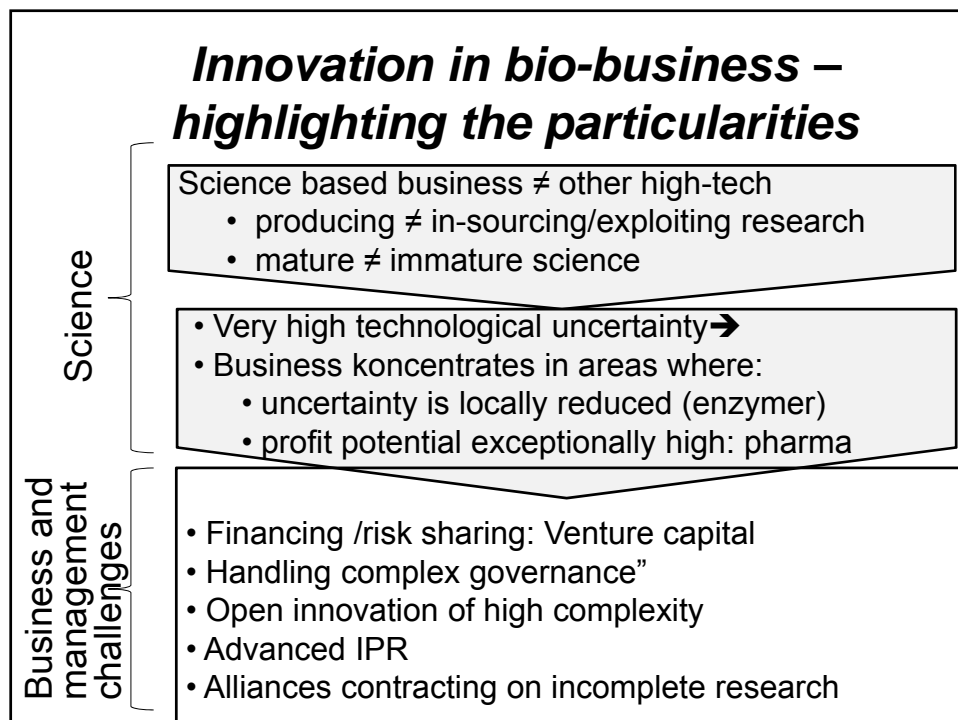
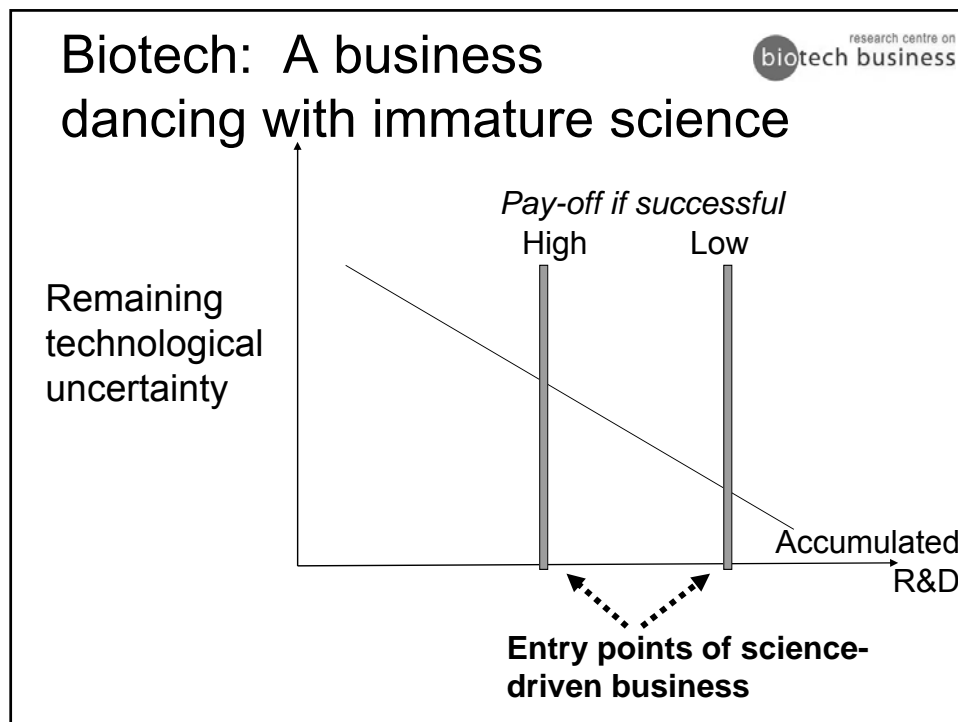


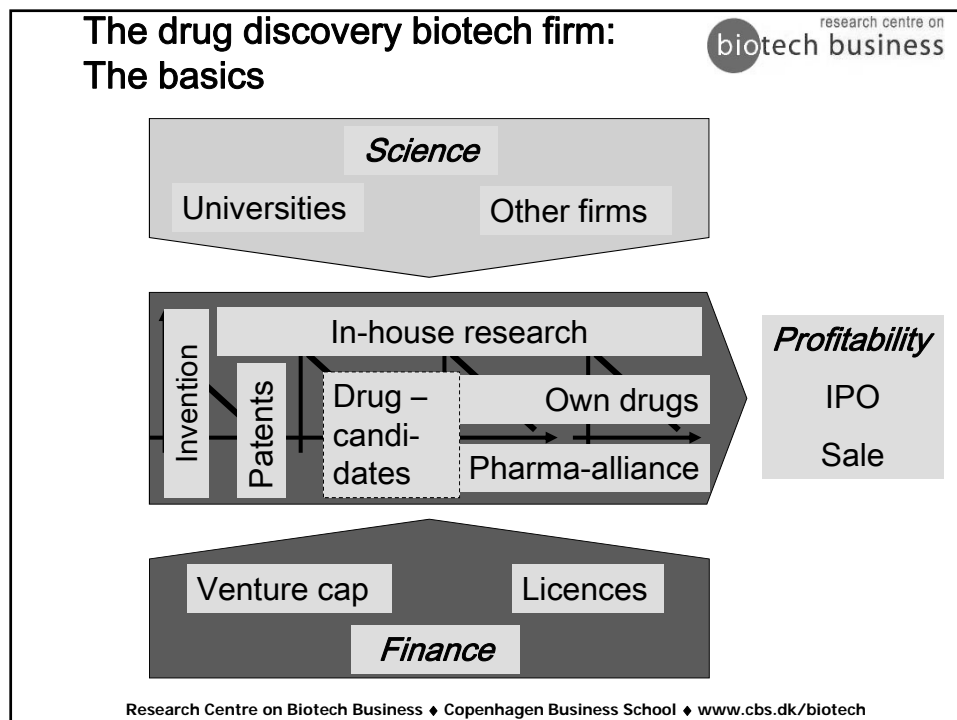
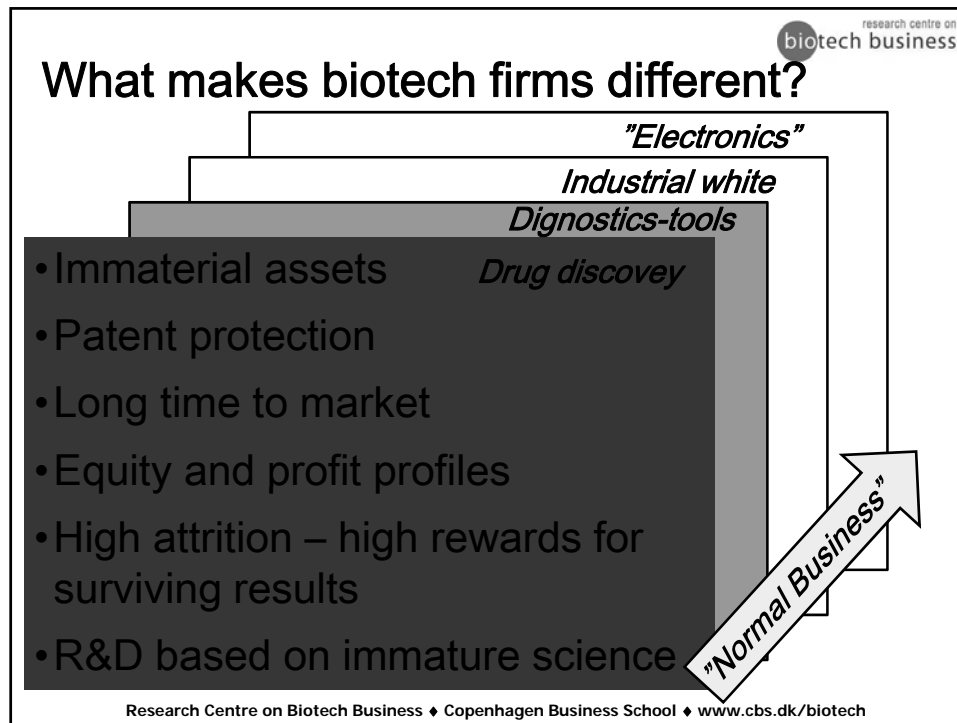
## Commercialisation of life sciences take different forms across industries

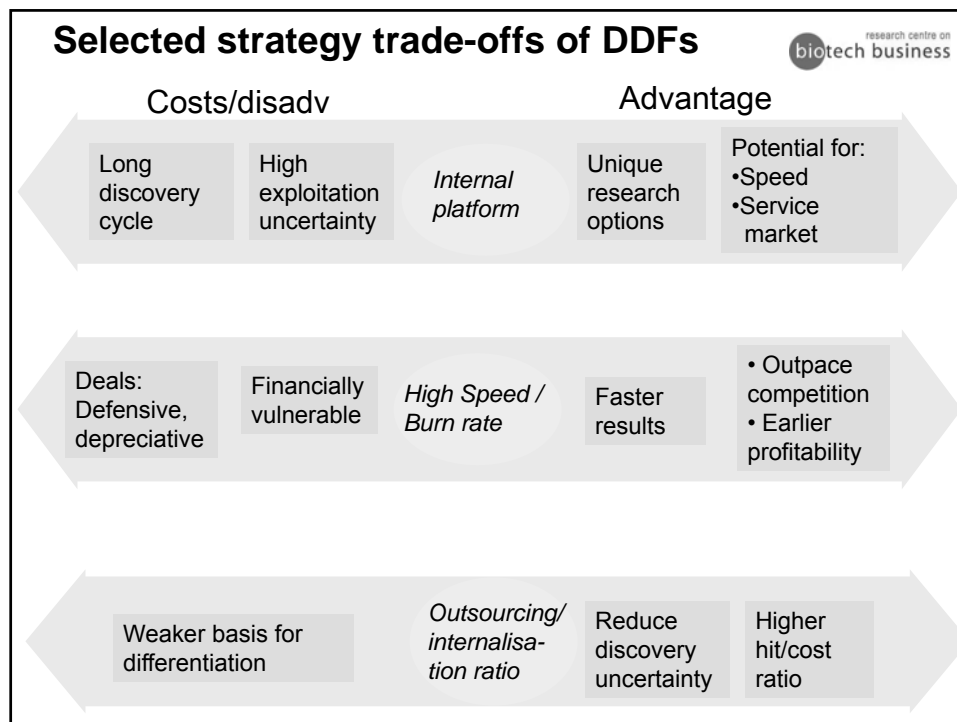


Techniques and technologies applying genetics, immunology, molecular, cellular structural biology for discovery and dev't of new products

Rather than trying to cover it all, this talk focuses on Drug Discovery Firms (DDFs)







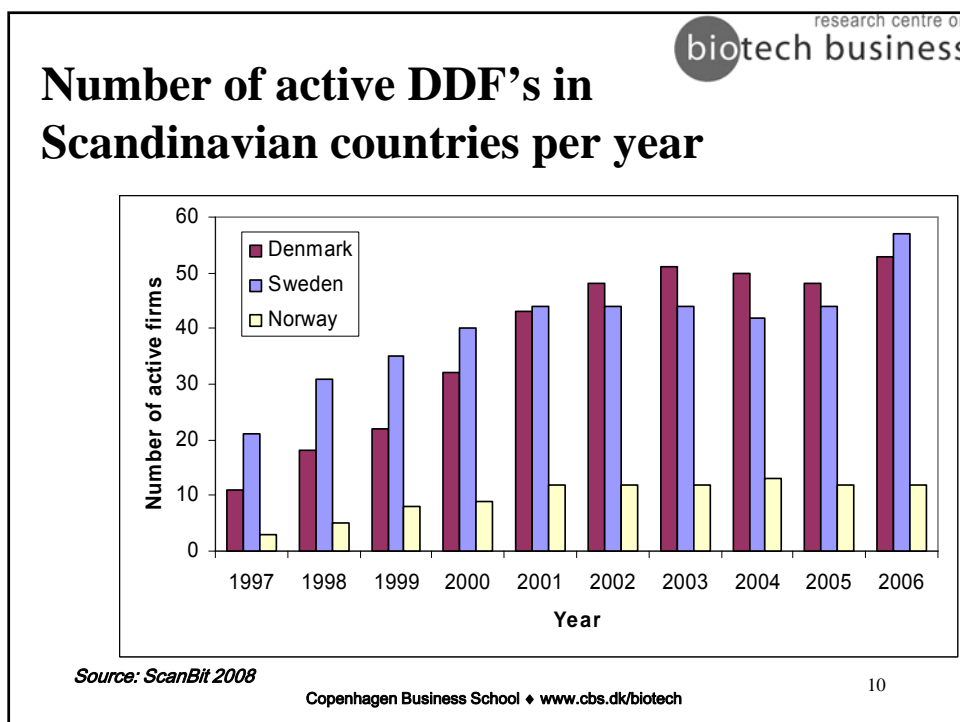
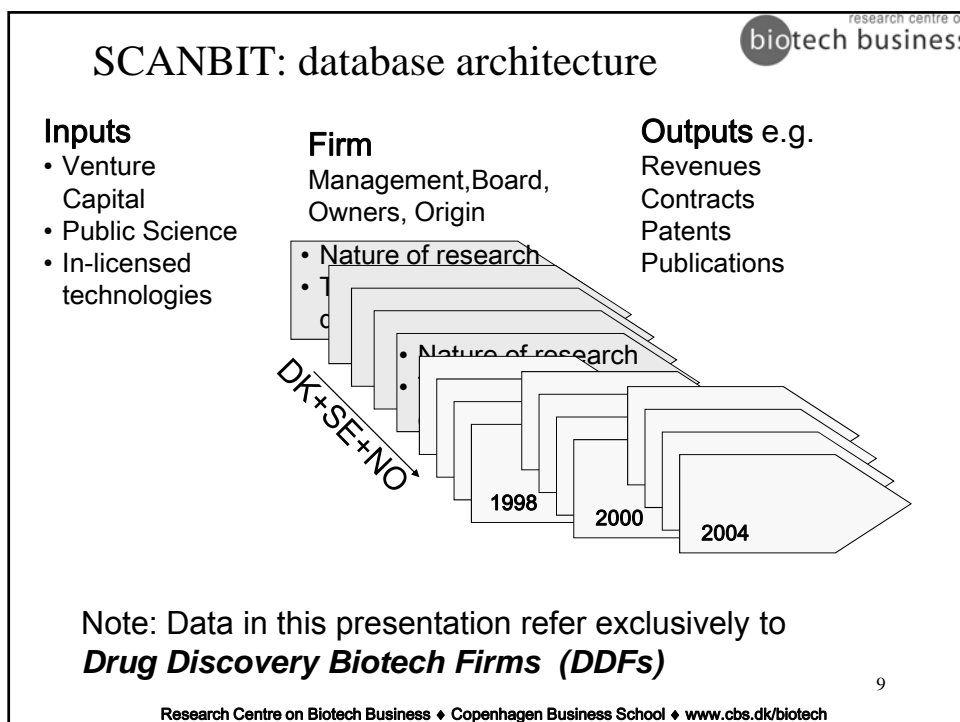
**Success factors for biotech firms: Learning from comparing Dk and SE Sweden..** research centre on biotech business

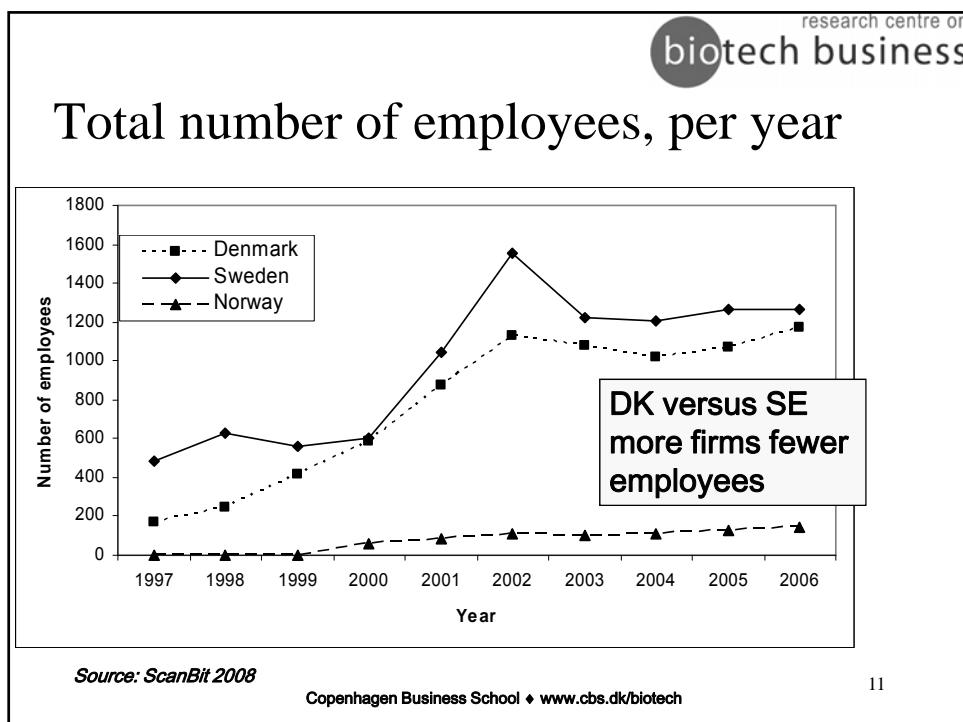
- had an earlier start and until the late 1990s more DDFs than Denmark
- had a much larger and more developed VC

Yet 10 years later Denmark performed notably better in terms of growth of DDFs, number of projects, attraction of VC.

In short: an interesting window for learning

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## Differences in firm structure for DK, SE & NO

(Share of employment in different size categories)

No of employees	Country	Denmark		Sweden		Norway	
	Year	2000	2006	2000	2006	2000	2006
≤ 9	N	23	99	73	80	2	27
	%	3.94%	8.48%	12,07%	6,33%	3.51%	18.49%
10 – 49	N	361	259	113	245	55	119
	%	61.82%	22.17%	18,68%	19,40%	96.49%	81.51%
50 – 199	N	200	810	82	382	0	0
	%	34.25%	69.35%	13,55%	30,25%	0.00%	0.00%
≥ 200	N	0	0	337	556	0	0
	%	0.00%	0.00%	55,70%	44,02%	0.00%	0.00%

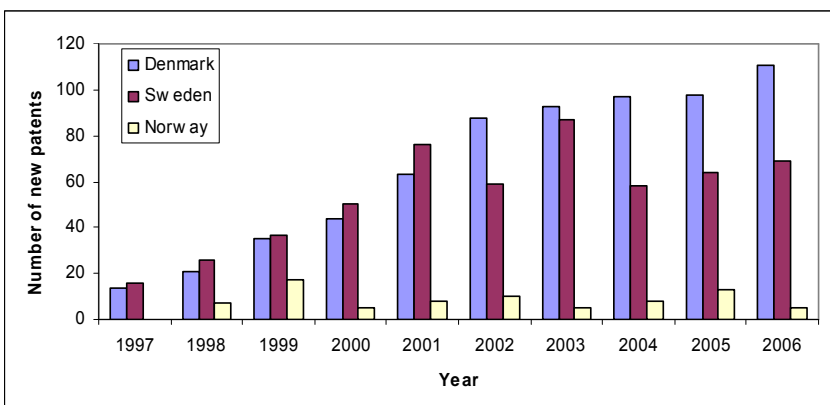
*Source: ScanBit 2008*

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## Number of new patents assigned to DDFs per year

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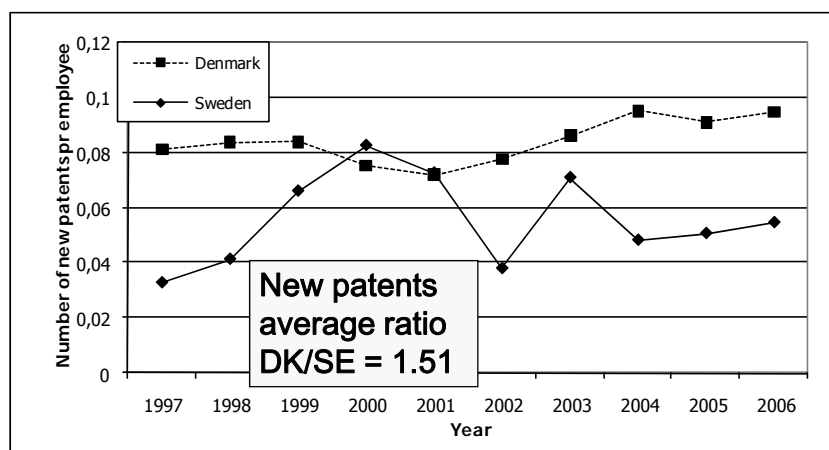
Source: ScanBit 2008

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## Number of new patents per employee

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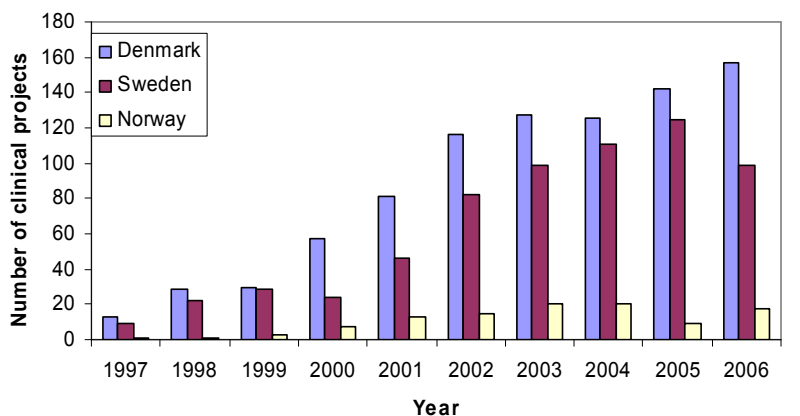


Source: ScanBit 2008

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## Number of active preclinical and clinical projects undertaken by DDFs in DK, SE & NO per year

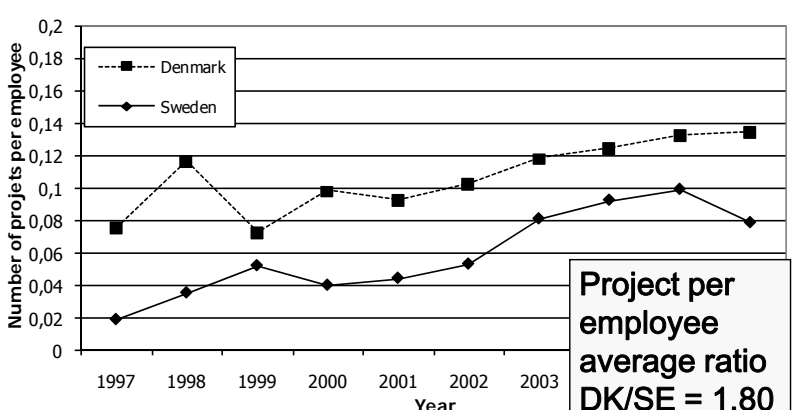


Source: ScanBit 2008

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## Number of preclinical + and clinical projects per employee

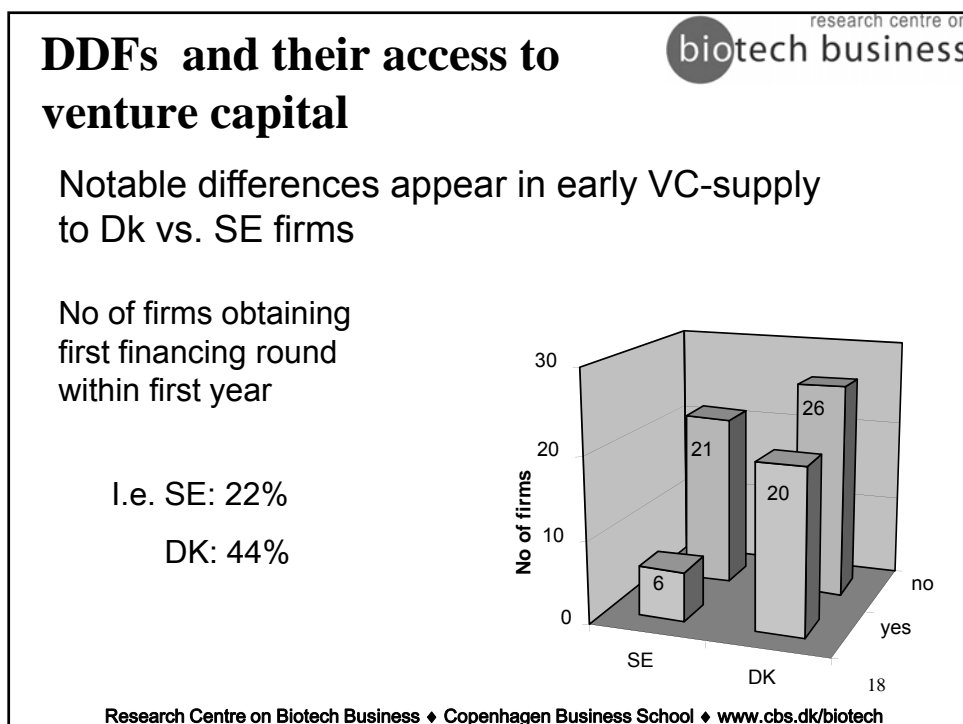
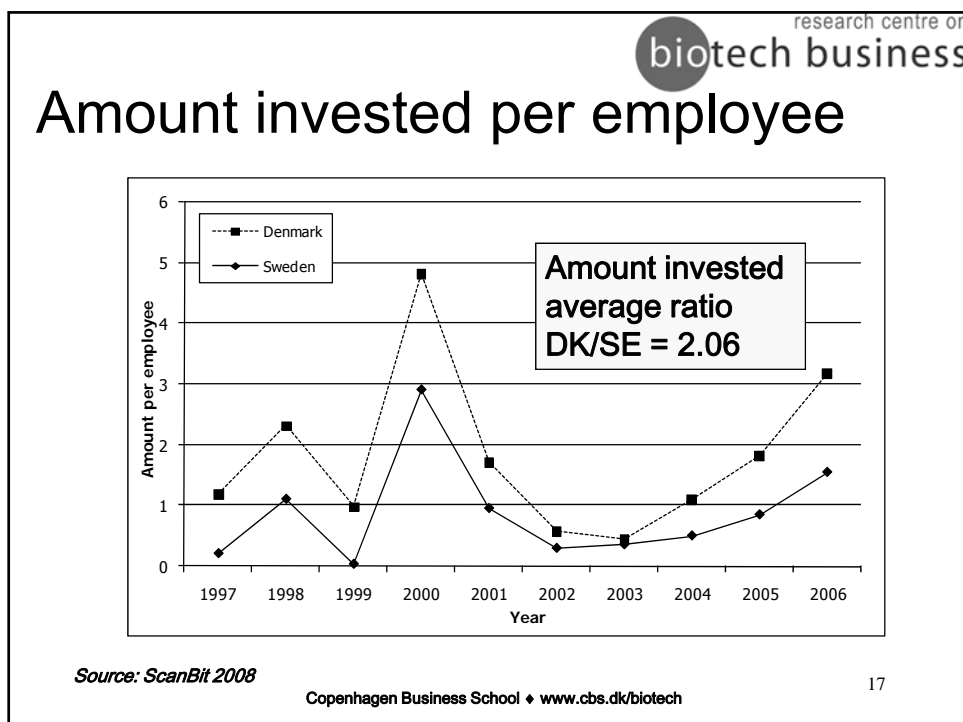


Source: ScanBit 2008

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## Prior affiliation of founders

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	DK		SE	
Founders	N	% of total	N	% of total
<i>University</i>	53	38,41%	75	68,81%
<i>DBF</i>	24	17,39%	7	6,42%
<i>Pharma</i>	36	26,09%	9	8,26%
<i>VC</i>	3	2,17%	4	3,67%
<i>Other firm</i>	15	10,87%	12	11,01%
<i>Not identified</i>	7	5,07%	2	1,83%
<b>SUM</b>	138	100,00%	109	100,00%

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## The role of founder's prior affiliation

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volume of VC  
financing  
achieved in  
first round  
VC-financing

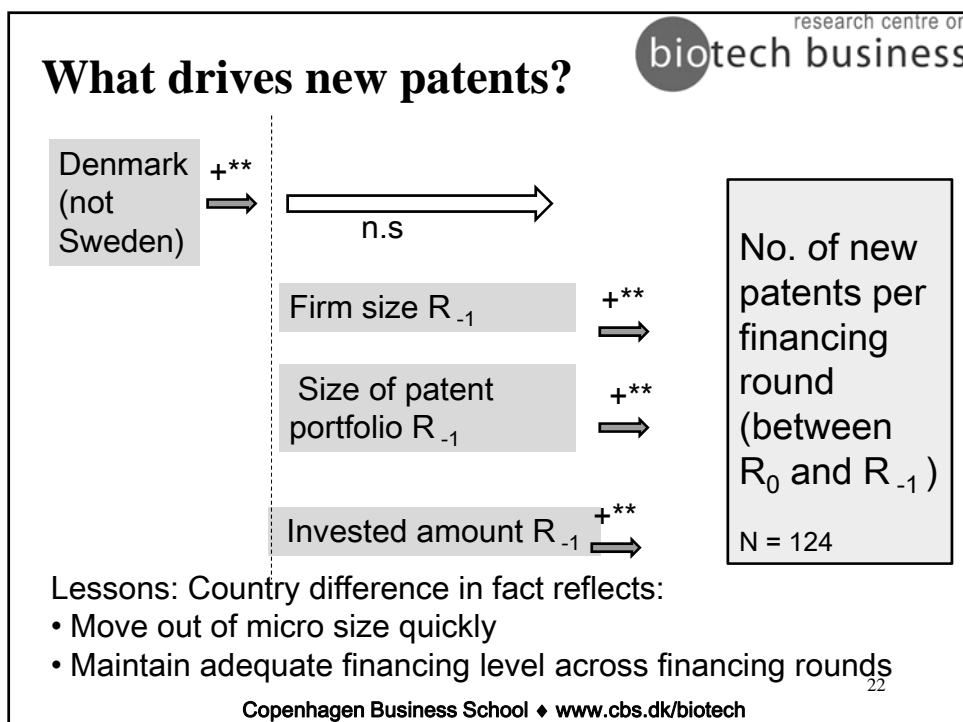
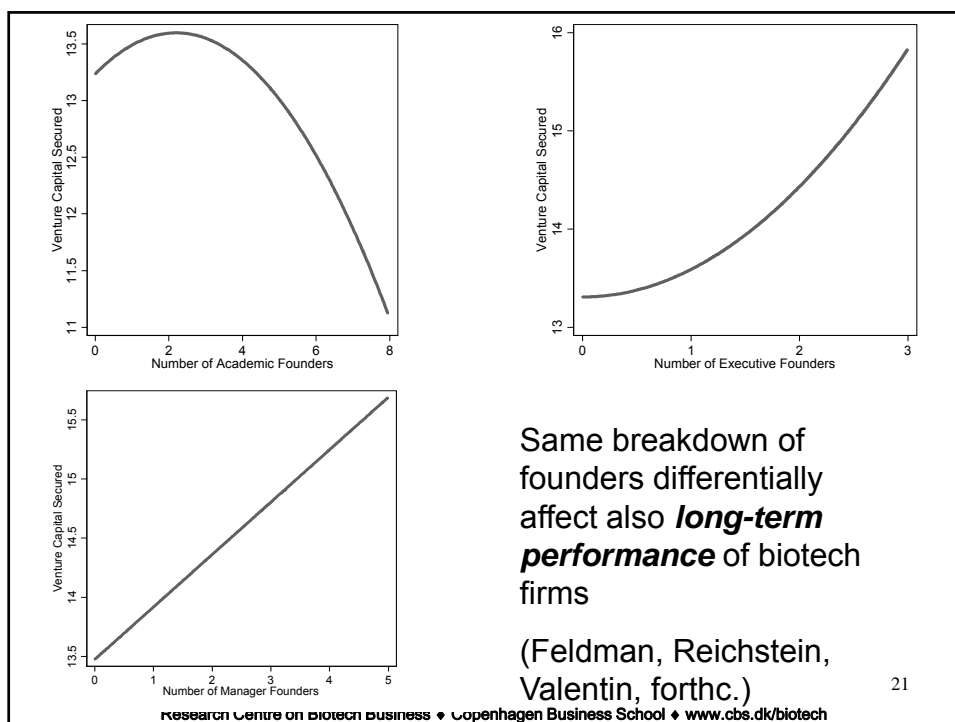
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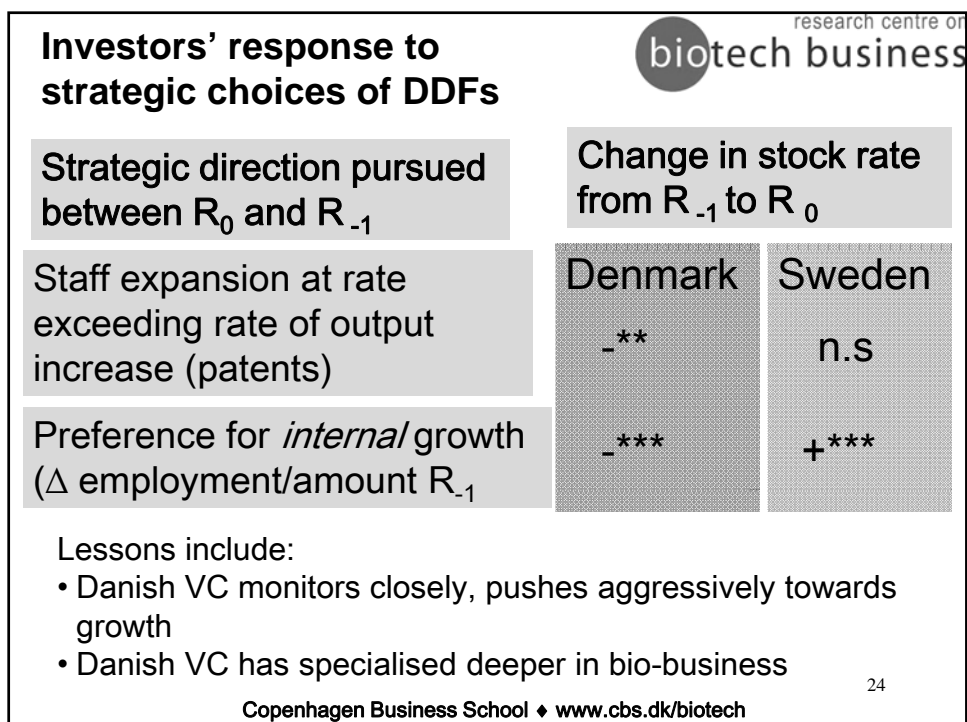
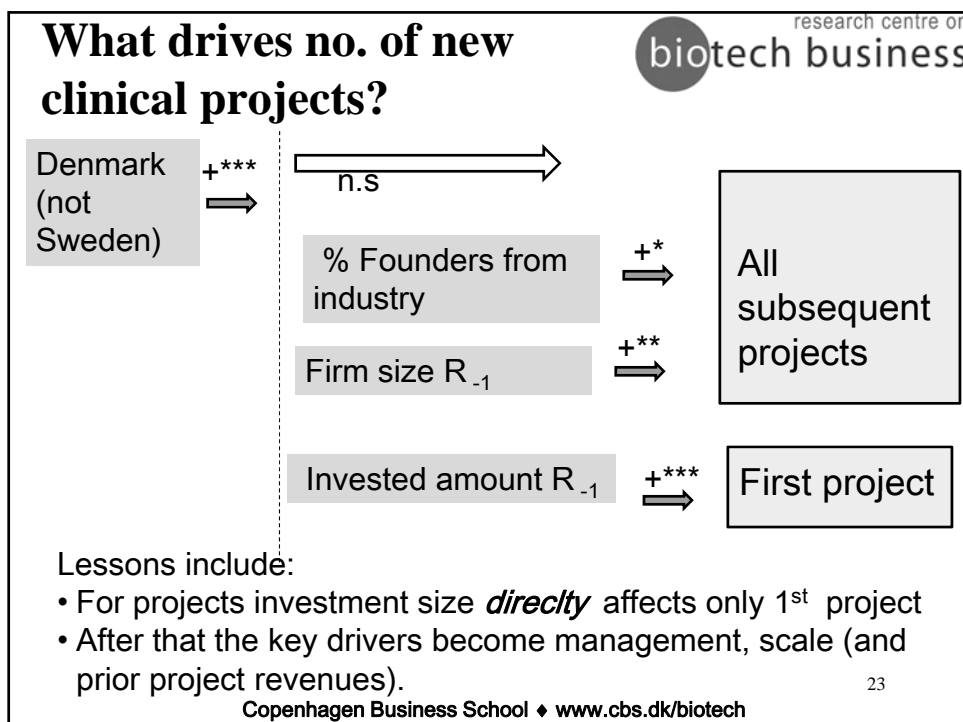
Number of  
founders by  
types of prior  
affiliation:

- Academics
- Managers
- Executives

from an upcoming paper Reichstein & Valentin models: 20

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## This lecture builds partly on:

“How venture capital shapes emerging bio-clusters - a cross-country comparison” *European Planning Studies*, Vol. 16, Iss. 3, p. 441- 463, 2008.

Authors: Finn Valentin, Rasmus L. Jensen and Henrich Dahlgren

“Shaken, Not Stirred: The Re-combinatorial Capacity of High-Tech Regions”. *Industry & Innovation* 16[1], 33-58. 2009

Authors: Henrich Dahlgren and Finn Valentin

## ***Innovation in bio-business – highlighting the particularities***

Science

Science based business ≠ other high-tech

- producing ≠ in-sourcing/exploiting research
- mature ≠ immature science

• Very high technological uncertainty →

• Business concentrates in areas where:

- uncertainty is locally reduced (enzymers)
- profit potential exceptionally high: pharma

Business and management challenges

• Financing /risk sharing: Venture capital

• Handling complex governance”

• Open innovation of high complexity

• Advanced IPR

• Alliances contracting on incomplete research

